

CLAIMS

Please amend claims 1, 10, 17 and 19 as indicated in the complete listing of the claims below. This listing replaces all prior versions and listings of claims in this application.

Claim 1 (Currently Amended) A method of providing a backup link active schedule for use in controlling communication in a process control system having a master link active scheduler that controls communication on a databus using a link active schedule and a backup link active scheduler that performs backup control of communication on the databus communicatively coupled directly together via [[a]] the databus, and further including a controller communicatively connected to the databus, comprising the steps of:

providing process control signals to the databus from the controller to perform process control activities;

storing a link active schedule in a master link active scheduler wherein the link active schedule includes a communication timing schedule for the databus;

automatically transmitting the link active schedule from the master link active scheduler over the databus to the backup link active scheduler upon receipt of the link active schedule in the master link active scheduler apart from the process control signals; and

storing the link active schedule in the backup link active scheduler.

Claim 2 (Original) The method of claim 1, further comprising the step of storing a list of backup link active scheduler devices associated with the databus in the master link active scheduler.

Claim 3 (Original) The method of claim 1, further comprising the steps of detecting when the backup link active scheduler is unavailable for storage of the link active schedule and notifying a user that the backup link active scheduler is unavailable for storage of the link active schedule.

Claim 4 (Original) The method of claim 1, further comprising the steps of detecting a failure to store the link active schedule in at least one backup link active scheduler and

notifying a user of the detected failure to store the link active schedule in at least one backup link active scheduler.

Claim 5 (Original) The method of claim 1, wherein the step of automatically transmitting includes the step of transmitting using an open communication protocol.

Claim 6 (Original) The method of claim 1, wherein the step of automatically transmitting includes the step of transmitting using a Fieldbus communication protocol.

Claim 7 (Original) The method of claim 1, further comprising the step of recognizing that the backup link active scheduler is no longer communicating on the databus.

Claim 8 (Original) The method of claim 7, wherein the step of recognizing includes the step of comparing a live list to a backup list.

Claim 9 (Original) The method of claim 7, further comprising the step of notifying a user that the backup link active scheduler is no longer communicating on the databus.

Claim 10 (Currently Amended) A system for controlling communications on a databus using a link active schedule having a communication timing schedule for the databus, and further including a controller communicatively connected to the databus, comprising:

the controller providing process control signals to the databus to perform process control activities;

a master link active scheduler that controls communication on the databus using a link active schedule, the master link active scheduler having a memory that stores [a] the link active schedule and a processor programmed to automatically transmit the link active schedule over the databus upon receiving the link active schedule; and

a backup link active scheduler that performs backup communication control on the databus, the backup link active scheduler in communication via the databus with the master link active scheduler [[that receives]] to receive the link active schedule transmitted from the master link active scheduler.

Claim 11 (Original) The system of claim 10, further comprising a list of backup link active scheduler devices stored in the memory.

C **Claim 12 (Original)** The system of claim 11, wherein the processor is further programmed to send the link active schedule to the backup link active scheduler devices in the list of backup link active scheduler devices.

Claim 13 (Original) The system of claim 10, wherein the processor is further programmed to detect when the backup link active scheduler is unavailable for storage of the link active schedule and to notify a user that the backup link active scheduler is unavailable for storage of the link active schedule.

Claim 14 (Original) The system of claim 10, wherein the master link active scheduler and the backup link active scheduler are each adapted to transmit over the databus using an open protocol.

Claim 15 (Original) The system of claim 14, wherein the open protocol is the Fieldbus protocol.

Claim 16 (Original) The system of claim 10, wherein the backup link active scheduler is a field device.

Claim 17 (Currently Amended) A system for controlling a process, comprising:

a user interface coupled to a first databus;

a controller communicatively coupled to the user interface through the first databus;

an I/O device coupled to the controller and further coupled to a second databus, the controller providing process control signals to the second databus to perform process control activities;

a plurality of field devices coupled to the second databus, each of the field devices adapted to communicate with the I/O device over the second databus;

a primary scheduler coupled to the second databus and adapted to use a link active schedule to control interoperation of the field devices;

a backup scheduler coupled to the second databus and adapted to communicate with the primary scheduler and the plurality of field devices via the second databus to perform backup control of the interoperation of the field devices; and

a processor associated with the primary scheduler and programmed to automatically store a backup copy of the link active schedule in the backup scheduler upon receiving the link active schedule.

Claim 18 (Original) The system of claim 17, wherein the second databus uses a Fieldbus communication protocol.

Claim 19 (Currently Amended) A communication scheduling system for use in a process control system having a master link active scheduler with a processor therein and a backup link active scheduler communicatively coupled to a databus, the master link active scheduler performing control of communications on the databus and the backup link active scheduler performing backup control of communications on the databus, and further including a controller communicatively coupled to the databus to send control signals via the databus, comprising:

a computer readable memory;

a first storing routine stored on the memory and adapted to be executed by the processor that stores a link active schedule having a communication timing schedule in the master link active scheduler; and

an automatic transmission routine stored on the memory and adapted to be executed by the processor that automatically transmits the received link active schedule from the master link active scheduler apart from said control signals over the databus to the backup link active scheduler upon receipt of the link active schedule in the master link active scheduler.

Claim 20 (Previously Amended) The communication scheduling system of claim 19, wherein the automatic transmission routine is further adapted to receive and store a list of backup link active scheduler devices and to automatically send the list of backup link active scheduler devices to the backup link active scheduler.

Claim 21 (Original) The communication scheduling system of claim 19, further comprising a detecting routine stored on the memory and adapted to be executed by the processor that detects when the backup link active scheduler is unavailable for storage of the link active schedule.

Claim 22 (Original) The communication scheduling system of claim 21, further comprising a notifying routine stored on the memory and adapted to be executed by the processor that notifies a user when the backup link active scheduler is unavailable for storage of the link active schedule.

Claim 23 (Original) The communication scheduling system of claim 19, further comprising a detecting routine stored on the memory and adapted to be executed by the processor that detects a failure to store the link active schedule in the backup link active scheduler.

Claim 24 (Original) The communication scheduling system of claim 23, further comprising a notifying routine stored on the memory and adapted to be executed by the processor that notifies a user of the failure to store the link active schedule in the backup link active scheduler.

C **Claim 25 (Original)** The communication scheduling system of claim 19, further comprising a detecting routine stored on the memory and adapted to be executed by the processor that detects when the backup link active scheduler is no longer communicating on the databus.

Claim 26 (Original) The communication scheduling system of claim 25, further comprising a notifying routine stored on the memory and adapted to be executed by the processor that notifies a user that the backup link active scheduler is no longer communicating on the databus.
